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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/072,677	02/07/2002	Edward R. Fyfe	FYFEE-4	2504

7590 12/18/2003  
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EXAMINER

RUDDOCK, ULA CORINNA

ART UNIT PAPER NUMBER

1771

DATE MAILED: 12/18/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/072,677

Applicant(s)

FYFE, EDWARD R.

Examiner

Ula C Ruddock

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on 23 September 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☐ Claim(s) 12-25 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☐ Claim(s) 12-25 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

### **DETAILED ACTION**

1. The Examiner has carefully considered Applicant's amendment and accompanying remarks filed September 23, 2003.
2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

### ***Claim Objections***

3. Claim 25 is objected to because of the following informalities: while Applicant has amended the claim to read on "means," the word "menas" has not been deleted. Appropriate correction is required.

### ***Claim Rejections - 35 USC § 102***

4. Claims 12, 13, 15-17, and 19-23 rejected under 35 U.S.C. 102(b) as being anticipated by Pileggi et al. (US 5,488,912). Pileggi et al. disclose panels made of cloth that are coated with wear-resistant polymeric material to enhance resistance to mechanical erosion (abstract). The panels are of adequate strength, corrosion resistant, and lightweight (col 2, ln 1-3). The textile-based fabric layer are covered with a protective coating to protect the textile fibers which provide the bulk of the tensile strength of each panel from mechanical abrasion, from harmful chemical reactions, and from potentially damaging radiation (col 6, ln 15-19). The preferred material for the fabric layer is a plain weave cloth (i.e. a woven fabric) woven of yarns of twisted fibers of an aramid material, such as Kevlar (col 6, ln 20-25). It should be noted that the Examiner is equating the Kevlar aramid yarns of Pileggi et al. to be the same as Applicant's polyaramid yarns. The coating wear-resistant polymeric material is prepared from a room temperature curing polyurethane

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material that is spread on each of the opposite surfaces of the aramid fiber cloth in a liquid form, and then is allowed to cure (col 6, ln 46-57). An acceptable polyurethane material for use as the coating is a two-part polyurethane casting elastomer (col 7, ln 15-21). The polyurethane has similar properties to Applicant's polyurethane as shown on page 6, lines 33-35, of Applicant's specification. With regard to claims 16, 17, and 22, the method of forming an article is not germane to the issue of patentability of the article itself. Furthermore, in the present invention, regardless of the intermediate steps required to form the article, the resulting final product is the same.

***With regard to the newly added amendment of a "wall having a surface," it should be noted that Pileggi et al. discloses that the panels that are structural components of the car body (abstract). Thus, it is the Examiner's position that the car body of Pileggi et al. can be equated to the wall of the present invention.***

Rejection is maintained.

***Claim Rejections - 35 USC § 103***

5. Claims 14 and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pileggi et al. (US 5,488,912), as shown above. Pileggi et al. disclose the claimed invention except for the teaching that the woven parallel yarns are spaced apart one-sixteenth of an inch to one inch. It should be noted that optimizing yarn spacing is a result effective variable. The smaller the spacing between the yarns directly affects the strength of the fabric. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to have made the

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woven parallel yarns of Pileggi et al. be spaced from one-sixteenth of an inch to one inch apart, since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. *In re Boesch*, 617 F. 2d 272, 205 USPQ 215 (CCPA 1980). In the present invention, one would have optimized the yarn spacing, motivated by the desire to create a fabric with increased strength and dimensional stability.

Rejection is maintained.

6. Claims 18 and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pileggi et al. (US 5,488,912), as shown above, in view of Isley, Jr. et al. (US 5,649,398). Pileggi et al. disclose the claimed invention except for the teaching that the coating further includes a means for rendering the coating fire-resistant.

Isley, Jr. et al. disclose high strength fabric reinforced walls wherein a fire-resistant coating may be used (col 6, ln 49-52). It would have been obvious to one having ordinary skill in the art to have used Isley, Jr's fire resistant coating in the coating of Pileggi et al., motivated by the desire to create a coating that has some degree of fire resistance.

Rejection is maintained.

### ***Response to Arguments***

7. Applicant's arguments filed September 23, 2003, have been fully considered but they are not persuasive for the reasons set forth. Applicant argues that Pileggi et al. fail to disclose that their panels could be attached to a wall surface by means of adhesion of the polymeric material. This argument is not persuasive because as shown above, it is the Examiner's position that the car

body of Pileggi et al. can be equated to the wall of the present invention. Furthermore, the polyurethane coating would inherently adhere the fabric of Pileggi et al. to the car body. Applicant also argues that the invention of Pileggi et al. has completely different properties from the composite of the present invention. While this may be true, Pileggi et al. disclose a two-part polyurethane casting elastomer, which inherently would be applied one part at a time. Applicant also argues that Pileggi et al. do not teach that the polymeric material creates desirable changes in the ductility, elongation, or strength of the textile. This argument is not persuasive because it is not commensurate in scope with the claims, as presently written. The present claims do not require that the polymeric material create desirable changes in the ductility, elongation, or strength of the textile. Applicant also argues that Pileggi et al. fail to disclose that their invention increased the apparent ductility, stiffness, or elongation of the car. This argument is not persuasive because it is not commensurate in scope with the claims, as presently written. The present claims do not require that the invention create desirable changes in the ductility, elongation, or strength of the car.

### ***Conclusion***

8. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the

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date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ula C Ruddock whose telephone number is 703-305-0066. The examiner can normally be reached on Monday-Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Terrel Morris can be reached on 703-308-2414. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0661.

UCR

*ucf*

**Ula C. Ruddock**  
Primary Examiner  
Tech Center 1700